US CUSTOMS SERVICE

LABORATORY ACCREDITATION PROGRAM
COMMODITY GROUP BROCHURE

DRAFT

PETROLEUM & PETROLEUM PRODUCTS

LABORATORIES AND SCIENTIFIC SERVICES
1300 Pennsylvania Avenue, N.W.
Ronald Reagan Bldg. Section 5.5-B
Washington, DC 20229

CONTENTS

The information provided below should be considered in DRAFT form, as the current regulations are just in the proposal stage. The information provided in this brochure should assist in the process of becoming an accredited laboratory. It is not a substitute for the complete guidelines which are being provided in the Federal Register.

Background

On December 8, 1993, the United States enacted the North American Free Trade Agreement Implementation Act (the Act), which contained provisions pertaining to Customs Modernization and section 613 of Subtitle A to Title VI which amends section 499 of the Tariff Act of 1930. Section 613 of the Act was established to codify existing Customs practices which had evolved to meet the demands of international trade regarding the examination and detention of merchandise: by removing obsolete examination requirements; authorizing the Secretary to designate examination sites; and providing for the collection of duties, fees, and taxes on merchandise not specified in an invoice or entry.

The provisions also codify Customs regulations and administrative guidelines concerning the use of commercial laboratories and gaugers. A new subsection (b) authorizes Customs to set procedures for the accreditation of commercial laboratories and for the approval of commercial gaugers and provide for the suspension and revocation of accreditations and approvals. A reasonable charge for accreditation or reaccreditation may be imposed. This subsection also creates appeal rights for commercial laboratories and gaugers to challenge in the Court of International Trade any order or decision relating to their accreditation or reaccreditation or the assessment of a penalty within 60 days of its issuance. Further, this subsection provides that, (1) in the absence of Customs testing, Customs shall accept analysis and quantity results from the Customs accredited laboratories and gaugers, but does not limit or preclude Customs or any other Federal agency from independently testing, analyzing or quantifying merchandise; (2) testing procedures and methodologies will, unless they reveal information proprietary to Customs, i.e., developed by Customs for enforcement purposes, or provided to Customs in confidence by a copyright, trademark or patent holder, be made available upon request to laboratories and importers or their agents. Testing results will be made available to the importer of record and/or his official representative; and (3) laboratories/gaugers may seek judicial review of any final Customs decision that adversely affects their accreditation/approval, i.e., denial, suspension, or revocation, or that imposes a monetary penalty, by commencing an action within 60 days of such decision in the Court of International Trade.

The regulations implementing the examination of merchandise provision of section 499 are found in part 151 of the Customs Regulations (19 CFR part 151); 151.12 and 151.13 pertains to commercial gaugers and laboratories. Complete text of the regulations can be found in the Federal Register, and it is the responsibility of the commercial laboratory or gauger to follow them. This brochure outlines the procedure, but should not be the sole source for anyone seeking to become an accredited commercial laboratory.

Definitions

1. An "analysis record" is a compilation of all documents which have been generated during the course of analysis of a particular sample which, under normal circumstance, culminates in the issuance of a laboratory report. An analysis record may include, both in paper and electronic form, such documents as worksheets, notes, associated spectra (both spectra of the actual product and standard spectra used for comparison), photographs and microphotographs, and the laboratory report.

2. "Authorized signatories" are individuals who have been approved by Customs to sign laboratory reports issued by Customs-accredited laboratories for Customs purposes. Company and corporate officers are given authorized signatory status at the time of accreditation. Such officers appointed after the initial accreditation becomes effective will become authorized signatories upon successful completion of a background investigation.

3. "Check samples" are samples which have been distributed by Customs to accredited laboratories to test their proficiency in a certain area of accreditation.

4. "Commercial laboratories" are individuals and commercial organizations which analyze merchandise, i.e. to determine its composition and/or characteristics, through laboratory analysis. Commercial laboratories may own and operate commercial gaugers and vice versa; however, gauger approvals are granted separately by Customs under section 151.13.

5. A "Customs-accredited laboratory" is a commercial laboratory, within the United States, that has demonstrated, to the satisfaction of the Director, pursuant to this section, the capability to perform analysis of certain commodities to determine elements relating to the admissibility, quantity, composition, or characteristics of imported merchandise. The specific commodity groups are listed on the last page of this brochure.

Accreditation of Commercial Laboratories, Part 151

Laboratories will be accredited for test procedures within commodity groups. These test procedures are listed in the appropriate Commodity Group Brochures, such as this, and are available from Customs. Laboratories may apply for accreditation in more than one commodity group. At the discretion of the Director, Laboratories and Scientific Services, accreditation may be granted for subgroups of tests within a commodity group or for commodity groups not specifically enumerated. Once accredited, laboratories may apply to add additional tests within a group or other commodity groups.

Customs shall accept, from Customs-accredited laboratories, laboratory reports providing data required for specific Customs purposes. The data must be obtained using methods approved by the Director, Laboratories and Scientific Services. These methods consist of both industry

standard test methods and Customs laboratory methods. While Customs laboratory methods may be obtained through the Director, Laboratories and Scientific Services, methods published by organizations such as ASTM, API, and similar organizations are not available through U.S. Customs. In cases where neither a published commercial method nor a Customs laboratory method is indicated, the commercial laboratory shall use a method of analysis which has been approved for use in Customs-related transactions by the Director, Laboratories and Scientific Services. This approval can be requested in writing during the application process or, any time after a laboratory has been accredited.

Nothing in these regulations shall preclude Customs from sampling and testing merchandise from a shipment which has been sampled at the request of an importer and tested by a Customs-accredited laboratory. In cases where a shipment has been analyzed by both a Customs laboratory and a Customs-accredited laboratory, all Customs actions will be based upon the analysis provided by the Customs laboratory unless the Director, Laboratories and Scientific Services, advises other actions.

Application Procedures

Commercial laboratories seeking accreditation shall send a letter of application to the U.S. Customs Service, Attention: Director, Laboratories and Scientific Services, 1300 Pennsylvania Avenue, N.W., Section 5.5-B, Washington, DC 20229. Applications shall include:

1. The applicant's legal name and the addresses of the principal place of business and any other facilities;

2. Detailed statements of ownership and any partnerships, parent-subsidiary relationships, or affiliations with any other domestic or foreign organizations, including, but not limited to, importers, other commercial laboratories, producers, refiners, Customs brokers, and carriers.

3. A statement of financial condition;

4. If a corporation, a copy of the articles of incorporation and the names of all officers and directors;

5. The names, titles, and qualifications of each person who will be authorized to sign or approve analysis reports on behalf of the commercial laboratory;

6. A complete description of the applicant's facilities, instruments, and equipment;

7. A Continuous Public Gauger Bond as provided for in Customs Directive 3510-04 executed in accordance with Part 113 of the Customs Regulations (19 CFR 113). The

bond need not be obtained until the final stages of the application review process. The applicant will be notified by Customs at the appropriate time to submit the bond to any Customs port office. Limits of liability on the bond will be established by the Customs port office in consultation with the Director, Laboratories and Scientific Services. In order to retain Customs accreditation, the laboratory must maintain its bond, and if necessary, upgrade it if requested to do so by the Customs port;

8. A statement for each commodity group for which accreditation is being sought, primarily:

   a. That all tests on all commodities in a named group can be performed, or

   b. That all tests on the commodities in a group except those indicated can be performed, or

   c. That the listed procedures which are not specifically provided for in the commodity group brochure are being submitted for approval for use;

9. A nonrefundable pre-payment equal to 50 percent of the fixed accreditation fee, as published in the **Federal Register** and **Customs Bulletin**, to cover preliminary processing costs. Further, the applicant agrees to pay Customs within 30 days of notification the associated charges assessed for accreditation, i.e., those charges for actual travel and background investigation costs, and the balance of the fixed accreditation fee.

10. A written agreement to avoid conflict-of-interest situations and to comply with requirements prescribed by Customs.

The accreditation process will include a general review of the applicant's physical plant and management system and specific assessments for each commodity group of application. The overall laboratory accreditation will consist of a review along the lines of the ASTM E 548 Standard Guide for General Criteria Used for Evaluating Laboratory Competence. This review will ascertain the laboratory's ability to manage and control the acquisition of technical data. This review will be performed at the time of initial application and upon reaccreditation at three-year intervals.

The specific accreditation for each commodity group for which accreditation is requested will focus on the laboratory's ability to perform the tests required in that commodity group. This, in particular, will include the qualifications of the technical personnel in this field and the availability of instruments required by the test methods.

Maintenance of accreditation will be on-going and will require the submission of test results on periodic check samples. The criteria for acceptance will be based on the laboratory's ability to produce a work product that will provide accurate technical data that can be used to establish the proper classification of and duty collection for the imported article.

The Director, Laboratories and Scientific Services, shall determine the applicant's competence and independence by use of appropriate techniques, including on-site inspections and background investigations. When Customs evaluation of the applicant is complete, the Director, Laboratories and Scientific Services, shall give notification to the applicant of approval or disapproval. Partial approvals and full disapprovals will include the reasons for these decisions. Final approval decisions will not be made until the applicant has satisfied all bond requirements and has made payment on all required application fees. All notices of approval, reapproval, and the extension of a laboratory's existing accreditations shall be published in the Federal Register and Customs Bulletin.

Laboratories receiving an adverse accreditation determination and wishing to appeal the determination must file an appeal within 30 days to the Director. Within 30 days of the receipt of the appeal, the Director shall make a final determination regarding the appeal and notify the laboratory in writing. If the Director reaffirms the nonselection, again citing specific reasons, then the applicant may choose to either: (I) submit a new application to the Director after waiting 90 days from the date of the Director's last decision; or (ii) file an action with the Court of International Trade, pursuant to chapter 169 of title 28, United States Code, within 60 days after the issuance of the Director's final decision.

Technical and Operational Requirements

To be accredited and to maintain accreditation, a commercial laboratory shall conform to the following:

1. Methods. The Director, Laboratories and Scientific Services, may require laboratories to follow specific methods for designated commodities to meet Customs technical requirements. Alternative methods will be considered on a case by case basis. In the absence of a specific procedure, laboratories shall employ recognized techniques based upon sound scientific principles.

2. Equipment. The laboratory shall be equipped with all of the instruments and equipment needed to conduct the tests for which it is accredited. The laboratory shall ensure that all instruments and equipment are properly calibrated, checked, and maintained.

3. Facilities. The laboratory shall conduct its work in facilities which have adequate space, lighting, and environmental controls to ensure compliance with the conditions prescribed in appropriate test procedures.

4. Personnel. The laboratory shall be staffed with personnel having the necessary professional training, knowledge, and experience for their assigned functions. In general, laboratory staff should have, at a minimum, a bachelor's degree in the sciences or two years related experience in an analytical laboratory.

5. Subcontracting. Laboratories accredited under this program shall not subcontract Customs-related analyses.

6. Record keeping requirements. Accredited laboratories shall maintain records of the type normally kept in the ordinary course of business. In addition, these laboratories shall maintain all records necessary to permit the evaluation and verification of all Customs-related work. All records shall be maintained for a minimum of ten years. Records to be kept shall include:

    1. Analysis record. Refer to the definition on page 4 of this brochure for the contents of the analysis record.

    b. Sample logs. Listing of samples tested for Customs purposes must be readily accessible and have the following: (I) a unique identifying number; (ii) the date when the sample was received or taken; (iii) the identity of the commodity; (iv) the name of the client; and (v) the source of the sample.

    c. Major equipment records of every instrument used in Customs-related work must have the name and type of the instrument, the manufacture's name, the instrument's model and serial numbers, and the details of all major servicing, recalibration, etc.

USCL METHODS FOR PETROLEUM AND PETROLEUM PRODUCTS

U.S. Customs recognizes the Standard Test Methods, the Standard Practices, and the Standard Specifications for petroleum products published by the American Society for Testing and Materials (ASTM) in the **Annual Book of ASTM Standards**. The ASTM Standard Specifications for petroleum products enumerate the Requirements, the Standard Test Methods, and Standard Practices to be used to evaluate these products. Since the Standard Specifications, Standard Practices, and Standard Test Methods can be updated and modified and in some cases replaced by new standards, it is important to use the edition of the document that is current at the time of importation.

The ASTM Standard Specifications for the various petroleum products enumerate a series of tests applicable to each of the Petroleum products. U.S. Customs recognizes these tests as appropriate for the analysis and identity of the specified products.

The following listing of Specifications, Practices, and Test Methods is intended to serve as a guideline in establishing identity and ensuring proper HTSUS classification. Other equivalent standards and methods may be available from the American Petroleum Institute (API), the Organization for Standardization (ISO), and other standards-writing organizations.

These enumerated USCL Methods should only be used for samples which fall within the scope of the enumerated method. For samples which fall outside the scope of any of the enumerated methods, it is the responsibility of the analyst to either obtain and use another standard method whose scope covers the sample or develop a method of analysis to meet the specific analytical requirements for the particular instant sample.

USCL NUMBER	METHOD	TITLE OF METHOD
27-01	ASTM D 287	Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method)
27-02	ASTM D 1298	Practice for Density, Relative Density (Specific Gravity), or API Gravity of Crude Petroleum
27-03	ASTM D 4006	Test Method for Water in Crude Oil by Distillation

USCL NUMBER	METHOD	TITLE OF METHOD
27-04	ASTM D 95	Test Method for Water in Petroleum Products and Bituminous Materials by Distillation
27-05	ASTM D 4928	Test Method for Water in Crude Oils by Coulometric Karl Fischer Titration
27-06	ASTM D 473	Test Method for Sediment in Crude Oils and Fuel Oils by the Extraction Method
27-07	ASTM D 4807	Test Method for Sediment in Crude Oil by Membrane Filtration
27-08	ASTM D 86	Test Method for Distillation of Petroleum Products
27-09	ASTM D 4953	Test Method for Vapor Pressure of Gasoline and Gasoline-Oxygenate Blends (Dry Method)
27-10	ASTM D 323	Test Method for Vapor Pressure Petroleum Products (Reid Method)
27-11	ASTM D 445	Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (and the Calculation of Dynamic Velocity)
27-12	ASTM D 88	Test Method for Saybolt Viscosity
27-13	ASTM D 4294	Test Method for Sulfur in Petroleum Products by Non-Dispersive X-Ray Fluorescence Spectroscopy
27-14	ASTM D 2622	Test Method for Sulfur in Petroleum Products (X-Ray Spectrographic Methods)
27-15	ASTM D 3437	Practice for Sampling and Handling Liquid Cyclic Products
27-16	ASTM E 300	Practice for Sampling Industrial Chemicals

USCL NUMBER	METHOD	TITLE OF METHOD
27-17	ASTM D 3438	Practice for Sampling and Handling Naphthalene, Maleic Anhydride, and Phthalic Anhydride
27-18	ASTM D 3852	Practice for the Sampling and Handling Phenol and Cresylic Acid
27-19	ASTM D 3439	Test Methods for Assay of Alkaline Cresylate Solutions from Petroleum Sources
27-20	ASTM D 4057	Practice for Manual Sampling of Petroleum and Petroleum Products
27-21	ASTM D 4177	Practice for the Automatic Sampling of Petroleum and Petroleum Products
27-22	ASTM D 396	Specification for Fuel Oils
27-23	ASTM D 975	Specification for Diesel Fuel Oils
27-24	ASTM D 2069	Specification for Marine Fuels
27-25	ASTM D 2880	Specification for Gas Turbine Fuel Oils
27-26	ASTM D 4814	Specification for Automotive Spark-Ignition Engine Fuel
27-27	ASTM D 1655	Specification for Aviation Turbine Fuels
27-28	ASTM D 910	Specification for Aviation Gasolines
27-29	ASTM D 3699	Specification for Kerosine
27-30	ASTM D 235	Specification for Mineral Spirits (Petroleum Spirits) (Hydrocarbon Dry Cleaning solvent)
27-31	ASTM D 3735	Specification for VM&P Naphthas

USCL NUMBER	METHOD	TITLE OF METHOD
27-32	ASTM D 938	Test Method for Congealing Point of Petroleum Waxes Including Petrolatum
27-33	ASTM D 5	Test Method for Penetration of Bituminous Materials
27-34	ASTM D 217	Test Method for Cone Penetration of Lubricating Grease
27-35	ASTM D 937	Test Method for Cone Penetration of Petroleum
27-36	ASTM D 1265	Practice for Sampling Liquefied Petroleum (LP) Gases (Manual Method)
27-37	ASTM E 137	Practice for Evaluation of Mass Spectrometers for Quantitative Analysis from a Batch Inlet
27-38	ASTM D 2650	Test Method for Chemical Composition of Gases by Mass Spectrometry
27-39	ASTM D 721	Test Method for the Oil Content of Petroleum Waxes
27-40	ASTM D 140	Practice for Sampling Bituminous Materials
27-41	ASTM D 977	Specification for Emulsified Asphalt
27-42	ASTM D 244	Test Methods for Emulsified Asphalts
27-43	ASTM D 2026	Specifications for Cutback Asphalt (Slow Curing Type)
27-44	ASTM D 2027	Specifications for Cutback Asphalt (Medium Curing Type)
27-45	ASTM D 2028	Specifications for Cutback Asphalt (Rapid Curing Type)

USCL NUMBER	METHOD	TITLE OF METHOD
29-01	ASTM D 3797	Test Method for Analysis of o-Xylene by Gas Chromatography
29-02	ASTM D 3738	Test Method for Analysis of p-Xylene by Gas Chromatography

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Commodity Group Brochures

- Dairy and Chocolate Products (HTSUS Chapters 4, 18, and 21)
- Food and Food Products (HTSUS Chapters 7-12, 15, 16, and 19-21)
- Botanical Identification (HTSUS Chapters 14, 44, 45 and 46)
- Sugar, Sugar Syrups and Confectionery (HTSUS Chapter 17)
- Spirituous Beverages (HTSUS Chapter 22)
- Building Stone, Ceramics, Glassware and Other Mineral Substances (HTSUS Chapters 25, 68, 69 and 70)
- Inorganic Materials, including Inorganic Compounds and Ores (HTSUS Chapters 26, 28, 31, and 36-38)
- Petroleum and Petroleum Products (HTSUS Chapters 27 and 29)
- Organic Materials, including Intermediates and Pharmaceuticals (HTSUS Chapters 29, 30, 34, 35, and 38)
- Rubber, Plastics, Polymers, Pigments and Paints (HTSUS Chapters 32 39 & 40)
- Essential Oils and Perfumes (HTSUS Chapter 33)
- Leather (HTSUS Chapters 41 and 42)
- Paper and Paper Products (HTSUS Chapters 47, 48, 49)
- Textile and Related Products (HTSUS Chapters 50-67)
- Metals and Alloys (HTSUS Chapters 72-83)